

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A method for modifying microparticles comprising ~~the steps of~~:

providing a gelatinous carrier medium in which microparticles are embedded;

introducing at least one component into the gelatinous carrier medium and bringing the at least one component into contact with the microparticles by ~~means of~~ induced, directional transport, with the at least one component exhibiting a mobility in the gelatinous carrier medium which is higher than that of the microparticles;

modifying the microparticles with the at least one component to produce modified microparticles; and

removing the modified microparticles from the gelatinous carrier medium.

2. (Original) The method as claimed in claim 1, characterized in that the gelatinous carrier medium is a solid gel.

3. (Currently Amended) The method as claimed in claim 1 ~~or 2~~, characterized in that ~~the provision of~~ providing the gelatinous carrier medium comprises ~~the steps of~~:

providing the carrier medium in a low-viscosity form;

introducing the microparticles into the carrier medium; and

increasing the a viscosity of the carrier medium such that ~~the~~ mobility of the microparticles in the carrier medium is restricted.

4. (Original) The method as claimed in claim 3, characterized in that the viscosity of the carrier medium is increased by converting the carrier medium into a gelatinous state or into a solid gel.

5. (Currently Amended) The method as claimed in ~~one of claims 1 to 4~~ claim 1, characterized in that the viscosity of the carrier medium is increased by ~~means of~~ the carrier medium undergoing a reversible sol-gel transition.

6. (Original) The method as claimed in claim 5, characterized in that the carrier medium is a gel which is liquefied by heating for the purpose of introducing the microparticles and is cooled down once again, for solidification, after the microparticles have been introduced.

7. (Original) The method as claimed in claim 5, characterized in that the carrier medium is a gel which is liquefied by adding a dispersing agent for the purpose of introducing the microparticles and the dispersing agent is at least partially removed once again, for solidification, after the microparticles have been introduced.

8. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that ~~the modification of~~ modifying the microparticles comprises coating the microparticles with the at least one component, ~~and/or using the at least one component to disintegrate microparticles which are coated with a shell, resulting in the formation of hollow structures, and/or introducing and/or concentrating the at least one component into/in the microparticle(s).~~

9. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that ~~the removal of~~ removing the modified microparticles from the gelatinous carrier medium is effected by lowering ~~the a~~ the viscosity of the carrier medium and separating off the modified microparticles from the carrier medium.

10. (Currently Amended) The method as claimed in claim 9, characterized in that the viscosity of the carrier medium is lowered by ~~means of~~ the carrier medium undergoing a gel-sol transition.

11. (Currently Amended) The method as claimed in claim 9 ~~or 10~~, characterized in that the viscosity is lowered by heating the carrier medium.

12. (Currently Amended) The method as claimed in claim 9 ~~or 10~~, characterized in

that the viscosity is lowered by adding a dispersing agent.

13. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that ~~the removal of~~ removing the modified microparticles from the gelatinous carrier medium is effected by decomposing the carrier medium and separating off the modified microparticles from the ~~decomposed~~ carrier medium that is decomposed.

14. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles are smaller than 30 micrometers, ~~in particular smaller than 5 micrometers, particularly preferably smaller than 1 micrometer~~.

15. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles are of biological origin or biotechnological origin.

16. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles ~~are belong to the group of inorganic or organic colloidal particles, such as silica particles or organic polymeric colloids~~.

17. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles contain an active compound.

18. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles employed are disintegratable or soluble particles.

19. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles possess catalytic properties.

20. (Currently Amended) The method as claimed in ~~one of the preceding claims~~

claim 1, characterized in that the at least one component components required for the coating comprises water-soluble organic polymers.

21. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the at least one component is used for coating the microparticles and comprises a compound selected from pharmaceutical ~~or~~ and cosmetic active compounds.

22. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the at least one component is used for coating the microparticles and comprises at least one inorganic substance ~~or~~ inorganic nanoparticles.

23. (Currently Amended) The method as claimed in claim 22, characterized in that the at least one component used for coating the microparticles comprises inorganic polyelectrolytes.

24. (Currently Amended) The method as claimed in claim 22 ~~or~~ 23, characterized in that the inorganic at least one component and nanoparticles used for coating the microparticles possesses catalytic properties.

25. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the at least one component is used for coating the microparticles and comprises water-soluble organic polyelectrolytes ~~such as~~ polymeric ~~colloids~~ ~~or~~ charged supramolecular structures ~~such as~~ dendrimers, ~~or~~ complexes ~~composed~~ ~~of~~ polyelectrolytes ~~and~~ surfactants ~~or~~ complexes ~~composed~~ ~~of~~ polyelectrolytes with each other.

26. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the at least one component is used for coating the microparticles and is of biogenic or bio-technological origin, ~~such as~~ viruses, bacteria,

~~blue algae, unicellular organisms, animal cells, liposomes, vesicles, cell organelles, membrane fragments and biopolymers such as proteins, nucleic acids and carbohydrates.~~

27. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the at least one component is used for coating the microparticles and is labeled with dyes, fluorescent dyes, magnetic or electrical labels, labels for spectroscopic and photographic methods and/or labels for biochemical or mass spectroscopic methods.

28. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that modifying the microparticles includes are coated consecutively coating the microparticles with at least two components for the purpose of forming a shell which comprises at least two layers.

29. (Currently Amended) The method as claimed in claim 28, characterized in that modifying the microparticles are coated includes coating the microparticles with at least one further component for the purpose of forming a shell comprising at least three layers.

30. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the microparticles are hollow particles having a shell which is constructed in layers.

31. (Original) The method as claimed in claim 30, characterized in that the at least one component is introduced into the hollow particles.

32. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the carrier medium is composed of organic polymers such as gelatin; biopolymers such as collagen, proteins, lipoproteins or glycoproteins; polyacrylamide, charged carbohydrates and their derivatives such as chitosan,

~~pectinate, alginate or agarose; gums such as gum arabic; or synthetic polymeric hydrogel-forming agents.~~

33. (Currently Amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that after the microparticles have been modified, the carrier medium is first of all comminuted and then decomposed ~~and/or its viscosity is reduced.~~

34. (Currently Amended) A device for modifying microparticles having a first and a second chamber ~~(2, 12)~~ which are ~~can~~ in each case capable of being filled with [[a]] liquid,

with wherein the two first and second chambers ~~(2, 2)~~ being are delimited from each other by a gelatinous carrier medium ~~(4)~~ between them,

with the wherein a distance ~~(20)~~ between the two first and second chambers ~~(2, 12)~~ being is defined by the a thickness of the gelatinous carrier medium ~~(4)~~,

wherein the gelatinous carrier medium ~~(4)~~ forming forms a contact area ~~(9, 19)~~ with each chamber, ~~(2, 12)~~ and

wherein the an extent of at least one of the contact areas ~~(9, 19)~~ being is greater, in at least one direction, than the distance ~~(20)~~ between the two first and second chambers.

35. (Currently Amended) The device as claimed in claim 34, characterized in that the extent of each contact area ~~(9, 19)~~ is greater, in all directions, than the distance ~~(20)~~ between the two first and second chambers.

36. (Currently Amended) The device as claimed in claim 34 ~~or 35~~, characterized in that on their sides of the first and second chambers which are in each case facing away from the intercalated gelatinous carrier medium ~~(4)~~, the two first and second chambers ~~(2, 12)~~ are in each case delimited by at least one membrane ~~(6, 16)~~ which is in each case opposite a first and, respectively, second functional chamber ~~(7, 17)~~.

37. (Currently Amended) The device as claimed in claim 36, characterized in that

each membrane (6, 16) has approximately ~~the a~~ same extent as the contact areas (9, 19) between the gelatinous carrier material (4) and the ~~two first and second~~ chambers (2, 12).

38. (Currently Amended) The device as claimed in claim 36 ~~or 37~~, characterized in that each functional chamber (7, 17) ~~can be~~ is capable of being filled with [[a]] liquid and contains at least one electrode (8, 18).

39. (Currently Amended) The device as claimed in claim 38, characterized in that the electrodes (8, 18) are designed as plates ~~in connection with which they are~~ arranged essentially parallel to the inserted gelatinous carrier medium (4).

40. (New) The method as claimed in claim 1, characterized in that modifying the microparticles comprises using the at least one component to disintegrate microparticles which are coated with a shell, resulting in the formation of hollow structures.

41. (New) The method as claimed in claim 1, characterized in that modifying the microparticles comprises introducing the at least one component into the microparticles.